LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, NEW MEXICO

OFFICE MEMORANDUM

TO : Carl Buckland, H-1 DATE: October 20, 1961

FROM : W. R. Kennedy, H-6

SUBJECT: "CLOSE IN FALLOUT" FROM CASTLE BRAVO

SYMBOL : H-6

The following measurements were made at various times at the places indicated following the March 1, 1954 detonation at Bikini Atoll. Speed of movement to all points is based on a measurement by a recording gamma meter located on Eniwetok Island, Rongerik Atoll. The meter indicated start of arrival at H + 7-3/4 hours, with an estimated peak reading at H + 8-3/4 hours. The distance is 135 nautical miles, so a mean speed of 17 knots has been used in the calculations. Extrapolated decay has been based on the $T^{-1.2}$ rate. No allowance has been made for weathering prior to measurement, so the values are probably low.

The bomb was a surface burst of 15 Megatons, 50% fission. The "hot line" of the fallout pattern was somewhat to the north of all the locations listed below. Kabelle Island, Rongelap Atoll, is the closest to the "hot line", but still probably some distance from it.

Island Location	Date-time	Reading mr/hr	Distance sea miles	Estimated Arrival time	Estimated Peak reading	Estimated D...
Rongelap	D + 7	375	103	H + 6	20 R/hr	600 R
Kabelle	D + 25	1000	108	H + 6.35	235 R/hr	7500 R
Eniwetok	D + 7	280	135	H + 8	11 R/hr	440 R
Utirik	D + 3	170	276	H + 16.2	1 R/hr	81 R

Wm. R. Kennedy

WRK:bg

cc: O.W. Stopinski
E. Bemis
File